

Technical BULLETIN

© 2003 YAMAHA MOTOR CORPORATION, U.S.A.

RECALL

This modification has top priority. This bulletin must be performed immediately to ensure customer safety.

2001 XV16AN, ANC, ASN, ASNC FACTORY MODIFICATION CAMPAIGN



INTRODUCTION

Yamaha Motor Corporation, U.S.A., has determined that a defect which relates to motor vehicle safety exists in certain 2001 XV16AN and XV16ANC ("Road Star") motorcycles, and in certain 2001 XV16ASN and XV16ASNC ("Midnight Star") motorcycles. In the transmission of affected motorcycles, the second/third pinion gear may be incorrectly machined, which could cause abnormal wear that eventually results in a broken retaining circlip. If the circlip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and an accident with injury or death.

To correct this defect, Yamaha is initiating a Factory Modification Campaign. Affected motorcycles must have the transmission gears and shafts replaced with new ones.

Yamaha is notifying all registered owners of affected motorcycles by mail. A copy of this letter is included in this bulletin. The customer should take the letter along with the affected motorcycle to an authorized Yamaha dealer for the modification.

A computer report listing all affected motorcycles invoiced to your dealership is included with this bulletin. Use the list to help ensure all motorcycles are modified. All sold motorcycles that have been registered with Yamaha will show the customer's name and address. Your dealership must notify the owner of any affected motorcycle that was actually sold but is listed as "unsold" in the report.

You must modify all affected motorcycles in your inventory as well as all customer-owned motorcycles brought to you for this service. Any affected motorcycle that you purchase from Yamaha in the future will also require modification. If you purchase a motorcycle from another dealer, check to see if the procedures in this bulletin have already been performed before you sell the motorcycle.

Motorcycles that are affected should not be operated until they are modified. It is a violation of Yamaha policy for your dealership to deliver any affected motorcycles to customers until the procedures in this bulletin are performed.

When the modification on each motorcycle is performed, follow the Warranty Information section of this bulletin to receive reimbursement. Be sure to use the Factory Modification Campaign procedures in Chapter 8 of the Warranty and Y.E.S. Handbook (LIT-11790-00-02).



DEALER ACTION SUMMARY

Modify: All XV16AN, ANC, ASN, and ASNC units in the affected range.

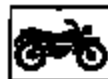
Parts

Required: Yes. Order one Transmission Gear/Shaft Assembly Kit for each unit.

Warranty: Factory Modification Campaign. See the Warranty Information section of this bulletin.

Notify

Customers: Yes. You must immediately contact any customer whose motorcycle shows as unregistered on the enclosed report. Yamaha has sent letters to customers whose motorcycles were registered for warranty as of xx/xx/03.



AFFECTED RANGE

XV16AN	VP02E-012385 ~ 014775
XV16ANC	VP02Y-001307 ~ 001456
XV16ASN	VP02E-012461 ~ 014870
XV16ASNC	VP02Y-001457 ~ 001706



SERVICE PROCEDURES

Use the XV1600 service manual (LIT-11616-12-56) for information on engine removal, disassembly, re-assembly, and installation.

The information contained in this section will give you tips or short cuts on certain procedures to help you work efficiently. For example, when disassembling the engine to access the transmission, it is not necessary to remove the camshafts, lifters, or stator assembly. Review the tips and become familiar with them before beginning work.

PREPARATION

Properly secure the motorcycle on a suitable lift. Drain the oil from the engine, reservoir tank, and transfer case. Remove the fuel tank, exhaust system, fuel system, drive system, etc. to prepare for engine removal.

Lay the components out in order of removal and keep all the fasteners separated for each component to ease re-assembly.

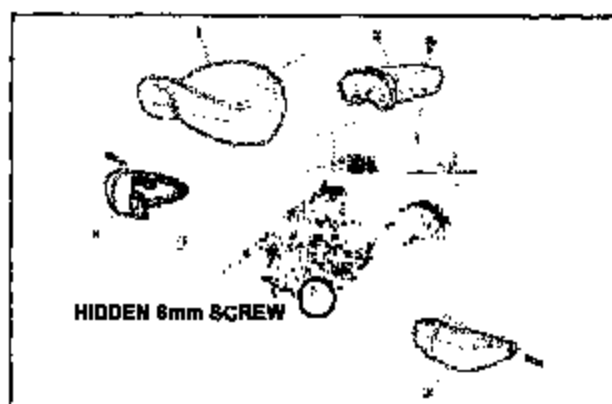
CAUTION:

Avoid accidental cosmetic damage. Place components such as fuel tank, side covers, and other easily damaged components in a secure and protected area. Take special care when removing and installing accessories.

TIPS

Side Cover Removal:

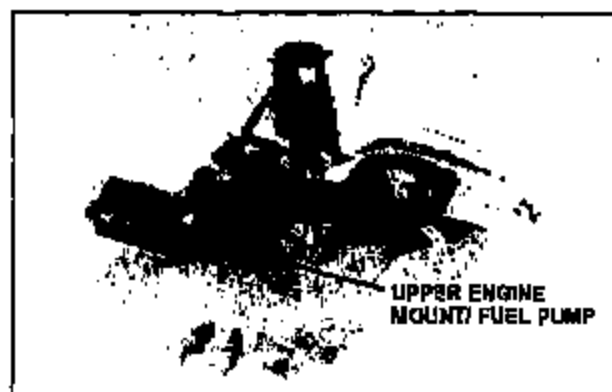
Before attempting to remove the right side cover, remove the left cover first to access the hidden 6mm bolt.



Fuel Pump and Carburetor Removal:

- Disconnect the carburetor fuel line hose at the fuel pump.
- Disconnect the fuel pump wire coupler.
- Remove the choke cable from fuel pump bracket.
- Remove the upper engine mount, leaving the fuel pump attached to the mount.
- Disconnect the TPS and carburetor wire couplers. Disconnect the throttle cables, and then remove the carburetor.

NOTE: The idle adjuster can be removed from its bracket without loosening the bracket screws.



Right-Hand Footrest Removal:

- Disconnect and remove the brake light switch.
- Remove the forward-most tie wrap around the brake hose and frame.
- Remove the footrest assembly.

NOTE: Leave the brake hose attached. Move the hose to the underside of the foot rest mount and support it as necessary so that it is out of the way



Cylinder Head Oil Pipe Removal/ Installation:

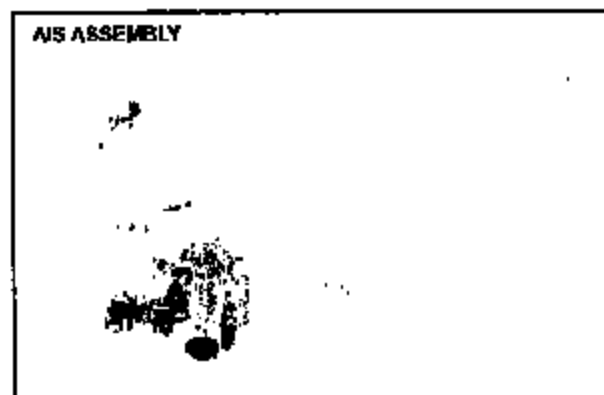
- Slightly Loosen all three banjo bolts before removing them to prevent oil line deformation.

NOTE: When loosening the upper banjo bolts, hold the line in place using a wrench at the flat surface on the fitting.



Air Injection System (AIS) Removal:

- Remove the electric starter motor.
- Remove the regulator/rectifier assembly. Remove the AIS pipes from the cylinder head, but leave them attached to the AIS assembly.
- Remove the three screws with 8mm heads, and then remove the AIS air filter from the right side.
- Remove the three Phillips head screws holding the AIS assembly on the frame.
- Remove the AIS assembly from the left side.



Transfer Case Removal:

- Remove the transfer case bracket first. Then remove the outer chrome cover, inner cover, and drive-sprocket nut.

NOTE: There is a sealing washer between the inner case and the transfer case at the 8mm stud. Be sure to replace it during re-assembly.

- Remove the two chrome oil lines between the engine and oil tank.

NOTE: Retain the four O-rings for re-use.

- Remove the drive pulley cover and remove the drive pulley nut.
- Loosen the drive belt tension.
- Remove the drive pulley, inner cover, collar, and O-ring.

NOTE: The collar has a bevel on its inside diameter for the O-ring facing inward and a bevel on the outside diameter facing the pulley.

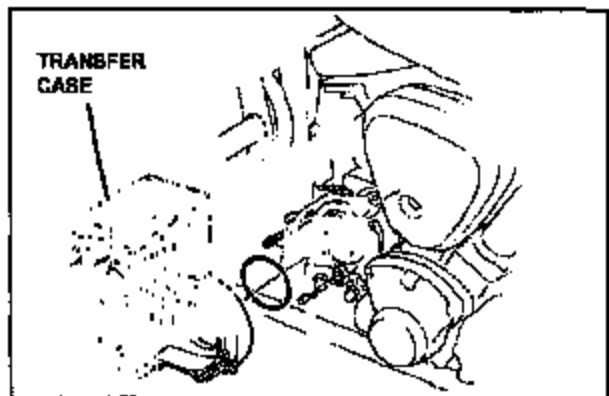
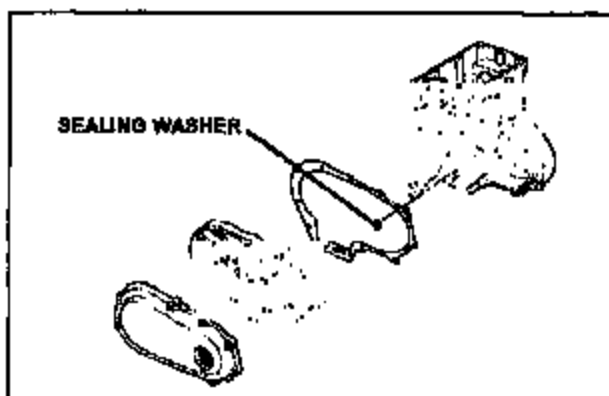
- Remove the drive and driven sprockets with chain as an assembly.
- Remove the collar and O-ring.

NOTE: Collar has a bevel on its inside diameter that faces inward for the O-ring.

- Remove oil tank filler neck.
- Remove the relay bracket on the right-hand side.

NOTE: Leave the relays connected. Simply move them out of the way to allow room for transfer case removal.

- Slide the transfer case out from the right side.



Engine Removal/Installation:

- When the engine is ready to be removed from the frame, be sure to disconnect all wire connectors and remove the oil filter bracket.
- Remove all engine mounting bolts and brackets.
- Protect all right side frame tubes with protective tape or an equivalent to prevent scratches.
- Insert steel rods in front and rear engine mount holes and with one person on each side of the engine lift the engine up and out to the right.

NOTE: Use 7/16" (10mm) steel rod at least 20" long. The steel rods used to compress the rear suspension of ATVs in their shipping crate work well.

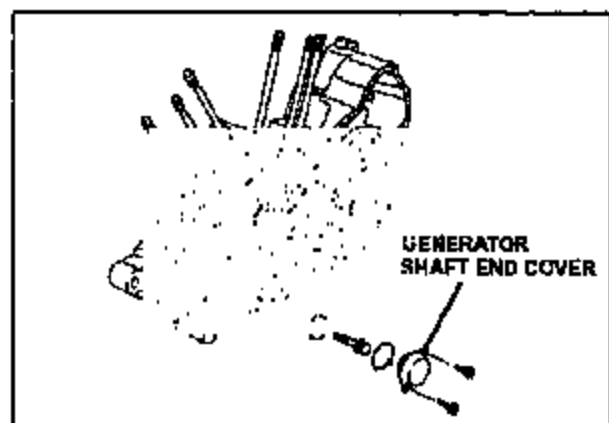
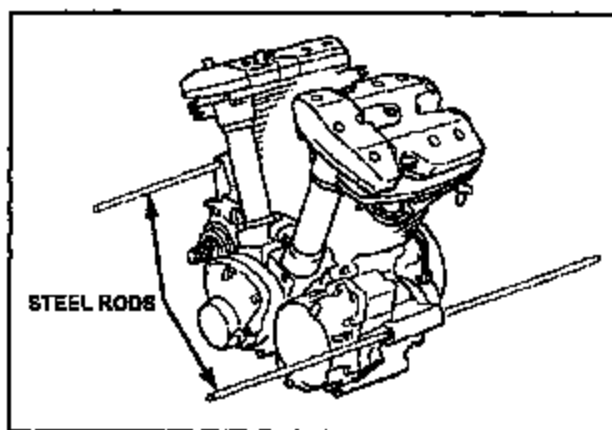
Engine Tear Down:

Place the engine on a work bench or work surface covered with cardboard or other protective material to protect the engine finish.

- Remove the left-hand generator shaft end cover and remove the generator shaft bolt and washer.
- Remove the clutch, primary drive gear, shift shaft, shift detent, oil pump gear and oil crossover pipe.

NOTE: The right side of the crossover pipe has an O-ring. If the O-ring doesn't come out with the crossover pipe, be sure to remove it while the engine is disassembled.

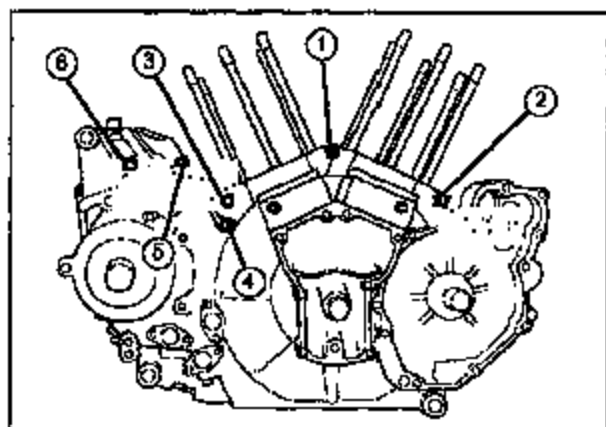
- Remove both top ends



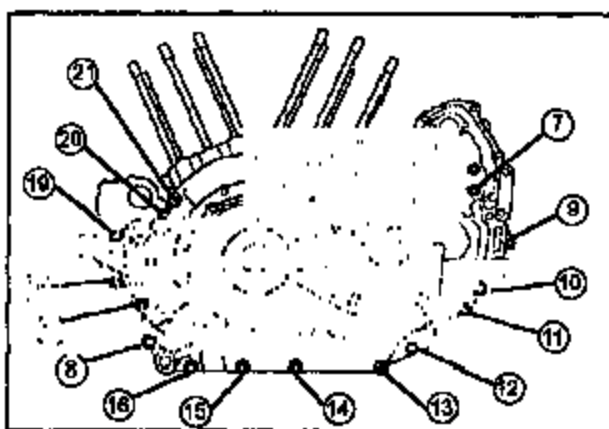
NOTE: Do not remove the push rod tubes from the crankcase. Remove only one circlip from the piston for quicker piston pin removal.

- Remove the right side crankcase bolts (three 6mm and three 6mm) only.

NOTE: Do not remove the cam cover or generator cover.



- Tilt the engine to the right and rest the cam cover against a block covered with cardboard or other protective material to protect the engine finish. Remove the left-side crankcase bolts (6mm bolts, quantity 15).
- Align the shift cam segment with the segment-shaped hole in the crankcase.
- While holding the crankshaft against the right crankcase, remove the left crankcase half.



CAUTION:

Be sure to hold the crankshaft against the right case half to prevent disengagement of the camshaft drive gear.

- Remove the shift fork shafts, shift forks, and transmission.





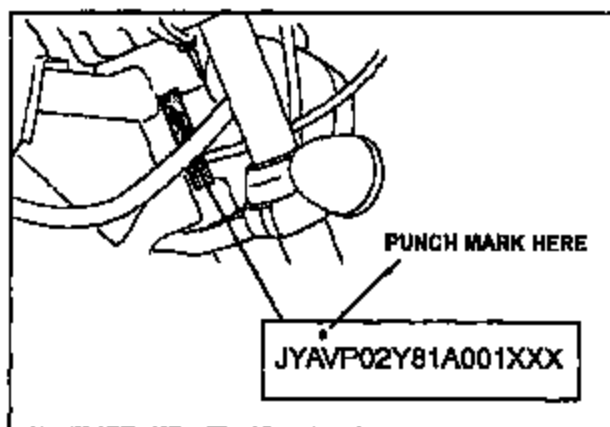
PARTS INFORMATION

Part Number	Description	Comments	Qty	Dealer Cost
90891-10116-00	XV16 Transmission Exchange Kit		1	\$142.67
	• Transmission Gear/Shaft Set		1	
	• Circlip (93450-24028-00)	For pistons	2	
	• Piston Ring Set (34L-11610-00-00)	For pistons (STD)	2	
	• Washer, Lock (90215-25218-00)	For clutch nut	1	
	• Gasket, Crankcase Cover 1 (5PX-15451-00-00)	Clutch cover gasket	1	
	• Gasket, Cyl. Head 2 (4WM-11182-00-00)	Lower rocker gasket	2	
	• Gasket, Head Cover 1 (4WM-11193-00-00)	Middle rocker gasket	2	
	• Gasket, Head Cover 2 (4WM-11194-00-00)	Upper rocker gasket	2	
	• Gasket, Cyl. (4WM-11351-00-00)	Base gasket	2	
	• Gasket, Cyl. Head 1 (4WM-11181-00-00)	Head gasket	2	
	• Gasket, Exhaust Pipe (3EG-14613-00-00)	Head pipe-to-cylinder head	2	
	• Gasket, Silencer (3XW-14755-00-00)	Muffler-to-head pipe gasket	2	
	• O-Ring (93210-505A4-00)	Intake manifold O-ring	2	
	• Gasket 1 (5PX-17929-00-00)	Transfer case cover gasket	1	
	• Washer, Lock (90215-26241-00)	For transfer gear and drive pulley nuts	2	
	• Element Assy, Oil Cleaner (3FV-13440-10-00)	Cartridge oil filter	1	
	• O-Ring (93210-08867-00)	Right side of oil crossover	1	
	• Gasket 2 (4WM-17931-00-00)	Sealing washer between transfer case	1	
	• Washer, Plate (90201-08087-00)	Copper sealing washer for oil line	2	
	• Gasket (90430-10171-00)	Copper sealing washer for oil line	4	



IDENTIFICATION PROCEDURE

After modifying a unit, make a punch mark above the frame number (VIN) on the steering head pipe as shown in the illustration below.



WARRANTY INFORMATION

Submit a Recall Request for the transmission replacement as described below using Recall Number 9900xx. Choose the status "M." You will be reimbursed a labor allowance of 8.5 hours, plus the cost of the Transmission Kit and your handling fee.

YDS:

When signed on to YDS, click on the Service Tab, and then "Recall Request-Add." This function has recently been improved to allow you to enter multiple Primary IDs for the same recall. Remember that YDS now requires a 7-digit serial number, so use a "0" as the first digit. The system will check your submission instantly to make sure the Primary ID numbers you've entered are valid for the recall. You can check back the next day for your claim numbers to track your credit.

MAIL:

Complete a recall Reimbursement Request (LIT-11790-00-97) as shown below:

Dealer Number: <input type="text"/>										Dealer Name: <input type="text"/>																			
Recall Number						Primary ID						Date Completed						Status											
9	9	0	0	1	5	V	P	0	2	Y	-	0	0	1	X	X	X	0	7	-	1	0	-	2	0	0	3	M	I

If you have any questions about proper procedures for Factory Modification Campaigns, see Chapter 8 in your Warranty and Y.E.S. Handbook (LIT-11760-00-02).



YAMAHA

CUSTOMER SUPPORT GROUP

6555 Katella Avenue, Cypress, California 90630-5101 (714) 761-7300

SAFETY RECALL NOTICE

August XX, 2003

Dear Yamaha Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Yamaha Motor Corporation, U.S.A., has decided that a defect which relates to motor vehicle safety exists in certain 2001 XV16AN and XV16ANC ("Road Star") motorcycles, and in certain 2001 XV16ASN and XV16ASNC ("Midnight Star") motorcycles. Our records show that you own one of these motorcycles.

The reason for this recall:

In the transmission of affected motorcycles, the second/third pinion gear may be incorrectly machined, which could cause abnormal wear that eventually results in a broken retaining circlip. If the circlip breaks, the transmission could lock up, which would also cause the rear wheel to lock up. This could result in loss of control and an accident with injury or death.

What Yamaha and your dealer will do:

To correct this defect, your authorized Yamaha dealer will replace the transmission gears and shafts with new ones. There will be no charge to you for this procedure. Your dealer will probably need to keep your motorcycle for at least two days to accomplish the required modification.

What you should do

Please call your Yamaha dealer to make a service appointment to have this procedure performed. At that same time you can find out how long he expects he will need to keep your motorcycle for this service. Remember to take this letter with you when you take in your Road Star or Midnight Star motorcycle.

You should not ride your motorcycle until this modification is performed.

If you are unable to return to the Yamaha dealer who sold you the motorcycle, this service will be performed by any authorized Yamaha Motorcycle dealer. For the name of a dealer near you, call 1-800-88-YAMAHA or visit the Yamaha web site at: www.yamaha-motor.com.

If you need help:

If, after contacting your dealership, you have questions or concerns which the dealership is unable to answer, please write to

Yamaha Motor Corporation, USA
Customer Relations Department
P.O. Box 6555
Cypress CA 90630

If, after contacting Yamaha Customer Relations, you are still not satisfied that we have done our best to remedy the situation without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh St. SW, Washington, DC 20590 or call the Auto Safety Hotline at 800-424-9383 (Washington DC residents may call 202-386-0123).

If you no longer own this Yamaha:

If you have sold your motorcycle to another party, please call us toll-free at 1-800-227-5963 with the name and address of the new owner, along with the serial number shown above your name on the address label above.

We're sorry to cause you any inconvenience, but we are sincerely concerned about your safety and continued satisfaction with our products. Thank you for giving your attention to this important matter.

Sincerely,
Customer Support Group
Yamaha Motor Corporation, USA